



## The University of Western Ontario

**SOCIOLOGY 3306B – 001**  
**Investigating the Social World:**  
**Quantitative Research Methods**  
**Winter 2022**  
**Mondays 1:30pm-4:30pm / SSC 1032**

**Instructor: Yoko Yoshida, PhD**

**Office Hours:** Thursdays (11am -1pm)

**Email:** [yoko.yoshida@uwo.ca](mailto:yoko.yoshida@uwo.ca)

3 hours, 0.5 course

### Course Description

The goal of this course is to provide the students with a sophisticated understanding of both evaluating and conducting quantitative social science research. Starting from the formulation of research questions and working through data collection and analysis, this course introduces the quantitative research process and exposes students to concepts, analytic tools and procedures, which are fundamental to conducting quantitative research in social science. Throughout the course, an emphasis will be placed on the relationship between theory and methods, the meaning behind the numbers, and telling stories based on the evidence.

This course will be run with two parts: 1) Lecture and 2) Workshops & Labs. Please be noted that the course may change to an online format in accordance with changes in public health protocols.

#### Prerequisite(s):

- Both Sociology 2205A/B and Sociology 2206A/B

Note: This course is mandatory for third-year Sociology students in an Honours specialization.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. The decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Antirequisite(s): none

#### Course format:

Although the intent is for this course to be delivered in-person, the changing COVID-19 landscape may necessitate some or all of the course to be delivered online. During the period of remote learning, the course will operate with *two components*: 1) **Lecture- asynchronous** and 2) **Online Forum - synchronous over zoom**.

Lecture slides and video clips will be posted on OWL and students are expected to review them on your own prior to the Online Forum (zoom session). In the Forum, we will review contents and learn

necessary tools to conduct course project. In addition, the important announcements will be made during the Forum. You are expected to join the Forum weekly. Starting time of Online Forum will be posted on the OWL.

The course will start with an online format at least until the end of January 2022. The format after January will be announced in class.

### **Learning Outcomes**

At the end of the course, students will be able to:

- understand the process of quantitative research in social science;
- develop a set of quantitative research questions, which are theoretically informed and grounded in existing research;
- appreciate the relationship among theory, concepts, measures, and analytical design;
- assess and evaluate best practices in research methods of data collection;
- apply uni-variate, bi-variate, and multi-variate analysis to produce empirical evidence; and
- interpret the results of multivariate quantitative data analyses.

### **Required Texts:**

Textbook: Singleton, R. and B. Straits. 2018. *Approaches to Social Research, 6th Ed.* Oxford University Press.

For the details of the textbook purchase, please visit the UWO bookstore website for this course.

Weekly reading assignment is listed in “**Course Schedule and Readings**”.

### Required supplemental readings:

Supplemental readings may be assigned in addition to the textbook. They will be posted on the course website (OWL).

### Sample Dataset of Instruction:

The [General Social Survey, Cycle 27: Social Identity](#) (Statistics Canada, 2013) will be used to illustrate examples and concepts taught in the course. A few additional datasets may be introduced to reflect a wider range of sociological research areas, if requested.

### Statistical Computing:

The statistical computing for the course will be done using STATA. STATA is available on computers located in the Social Science computing lab (Room 1032). If you would like to work on STATA for a course project from home, it is also available via myVlab, free of charge for the students registered in this course. In order to access Stata in the lab, students must: (1) have active Western accounts, and (2) have subscribed to “Western Identity Manager” and synchronized their passwords through the “Profile” tab. If you are having trouble gaining access, please call either the SSNDS main office (519-661-2152) or the ITS Help Desk (519-661-3800). There is some lab time set aside during class hours, but you will

most likely need to spend a significant amount of your own time. We will go through how to access and use state in the workshop.

## Method of Evaluation

1. **Mid-term Exam:** 35%
2. **Course Project: Quantitative Research Paper:** 65%
  - a. Literature Review/Research Question (20%)
  - b. Final Research Paper (45%)

**Evaluation Breakdown** (Dates and Formats are tentative, and will be finalized in the full draft of the outline)

1. **Mid-term exam** (35%): Mid-term exam is scheduled on **Monday, March 7<sup>th</sup>**. It will take place in-person during the class time. The exam consists of a combination of multiple choice and short answer questions and will require knowledge of the textbook, additional assigned readings, and lectures. You are responsible for all the material in the assigned chapters and readings even if this material is not covered in class.

Specific time and detail of the format will be announced in class closer to date.

2. **Quantitative Research Paper** (65%): To demonstrate your knowledge of quantitative research methods, you will be asked to develop a research paper using the Canadian General Social Survey (GSS). It is encouraged to select a research topic which can be addressed by the GSS, Cycle 27, Social Identity (or other cycles of the GSS).

This assignment will consist of two components:

- a) **Literature review and formulating a research question** (20%)  
*Due on Friday, February 11th at 11:55PM*
- b) **Final research paper** (45%)  
*Due on Monday, April 4th at 11:55PM*

The final research paper builds on the first assignment. You are encouraged to modify the first assignment, reflecting the feedback and to use it as the first part of your final research paper.

## Contact Information:

Instructor: Email: [yoko.yoshida@uwo.ca](mailto:yoko.yoshida@uwo.ca).  
Phone: 519 661 2111 ext 85045

Teaching assistant: TBA

## How to get important course information:

For information about the course, please read the course outline carefully and attend the classes weekly. Also, check your email and course website for announcements.

## Overview of Course Schedule (The schedule may change depending on progress.)

| Week | Dates       | Topic   |
|------|-------------|---|
| 1    | January 10  | Introduction/The Nature of Science (S&S Ch. 1&2)  |
| 2    | January 17  | <i>Role of theory in quantitative research</i> - The Logic of Scientific Reasoning (S&S Ch. 2 &4) |
| 3    | January 24  | Research question/Literature review (S&S Ch.4/17)   |
| 4    | January 31  | Elements of Research design (S&S Ch. 4)   |
| 5    | February 7  | Survey Research Methods – Measures (S&S Ch. 9&5)  |
|      |             | <b><i>Deadline: Research Paper – Lit Review &amp; Research Q</i></b>                              |
| 6    | February 14 | Survey Research Methods – Sampling (S&S Ch. 9&6)  |
|      | February 21 | Reading Break - No Class  |
| 7    | February 28 | Survey Research Methods – Instrumentation (S&S Ch. 9&10)  |
| 8    | March 7     | <b><i>Mid-term Exam</i></b>   |
| 9    | March 14    | Data Processing and Elementary Data Analysis (S&S Ch.15)  |
| 10   | March 21    | Multivariate Analysis I (S&S Ch.16)   |
| 11   | March 28    | Multivariate Analysis II (S&S Ch.16 & 17)   |
| 12   | April 4     | Research Ethnics (S&S Ch 3)   |
|      | April 4     | <b><i>Deadline: Final Research Paper</i></b>  |

## **Course Schedule and Readings**

(The schedule may change depending on progress and public health protocols. Changes will be announced in class as well as on the course OWL site).

### **Week 1: Introduction/The Nature of Science**

*Readings:* Textbook Chapters 1&2

*Online Forum:* Introduction to the course

### **Week 2: Role of Theory in quantitative research**

*Readings:* Textbook Chapters 2 & 4

*Online Forum:* Discussion on course projects

### **Week 3: Research question/Literature review**

*Readings:* Textbook Chapters 4 & 17

*Online Forum:* Literature search (Presentation by a librarian) & literature review

### **Week 4: Elements of Research Design**

*Readings:* Textbook Chapter 4

*Online Forum:* Research Hypothesis and Operationalization  
Explore Datasets (ODESI)

### **Week 5: Survey Research Methods & Measures**

*Readings:* Textbook Chapters 9&5

*Workshop/Lab:* Introduction to STATA and GSS

### **Week 6: Survey Research Methods & Sampling**

*Readings:* Textbook Chapters 9&6

*Workshop/Lab:* Q&A for the Research Proposal Assignment (a)  
Data processing with STATA I

### **Week 7: Survey Research Methods & Instrumentation**

*Readings:* Textbook Chapters 9&10

*Workshop/Lab:* Exam review

### **Week 8: Midterm Exam – in-person**

### **Week 9: Data Processing and Elementary Data Analysis**

*Readings:* Textbook Chapter 15

*Workshop/Lab:* Uni-variate and Bi-variate analysis with STATA

### **Week 10: Multivariate Analysis I**

*Readings:* Textbook Chapter 16

*Workshop/Lab:* Analyzing relationships with three variables (X, Y, Z) with STATA

**Week 11: Multivariate Analysis II**

*Readings:* Textbook Chapter 16 & 17

*Workshop/Lab:* Discussion on conceptual and statistical models  
Introduction to multi-variate analysis

**Week 12: Research Ethics and Conclusion**

*Readings:* Textbook Chapter 3

*Workshop/Lab:* Q&A for Final Research Paper

## Important Policies

### Course delivery with respect to the COVID-19 pandemic

Although the intent is for this course to be delivered in-person, the changing COVID-19 landscape may necessitate some or all of the course to be delivered online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will not change. Any assessments affected will be conducted online as determined by the course instructor.

When deemed necessary, tests and examinations in this course will be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide personal information (including some biometric data) and the session will be recorded. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at: <https://remoteproctoring.uwo.ca>.

### Academic Consideration for Missed Work

Students who are seeking academic consideration for missed work during the semester may submit a *Self-Reported Absence (SRA)* form online provided that the absence is **48 hours or less** and the other conditions specified in the [Senate policy](#) are met. Two important exceptions to this rule: SRAs will NOT be allowed for final examinations or assessments worth more than 30% of a given course. Students whose absences are expected to last **longer than 48 hours**, or where the other conditions detailed in the policy are not met (e.g., work is worth more than 30% of the final grade, the student has already used 2 self-reported absences, the absence is during the final exam period), may receive academic consideration by submitting a [Student Medical Certificate](#) (for illness) or other appropriate documentation (for compassionate grounds) to your Home Faculty Academic Counselling office.

All students pursuing academic consideration, regardless of type, must contact their instructors no less than 24 hours following the end of the period of absence to clarify how they will be expected to fulfill the academic responsibilities missed during their absence. **Students are reminded that they should consider carefully the implications of postponing tests or midterm exams or delaying submission of work, and are encouraged to make appropriate decisions based on their specific circumstances.** [www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_illness.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_illness.pdf)

Unexcused late assignments will be penalized 5% per day (including weekend days). Please note that computer or internet problems are not an excused circumstance. You are expected to follow good computer practices, including backing up your work.

### Policy on Accommodation for Medical Illness

Western's policy on Accommodation for Medical Illness can be found at [www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_medical.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf).

Students must see the Academic Counselor and submit all required documentation in order to be approved for certain accommodation:

[https://counselling.ssc.uwo.ca/procedures/academic\\_consideration.html](https://counselling.ssc.uwo.ca/procedures/academic_consideration.html)

### **A Note on Plagiarism**

Students must write their assignments in their own words. Whenever students take an idea from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major scholastic offence (the Scholastic Offence Policy can be viewed in the Western Academic Calendar).

However, for the final assignment of the research proposal assignment, the use of your own writing from the previous assignment is permitted, in so far as it is from your own work.

**Plagiarism Checking:** All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com ([www.turnitin.com](http://www.turnitin.com)).

### **Policies on Examinations**

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

### **Policy on Laptops and other Electronics/Phones in Class:**

Laptops are permitted in class, but if it is observed that students are on social networking sites such as Facebook or Twitter, they will be told to close the lid and they will not be permitted to use it for the remainder of the class. Be sure that all cell phones are turned off at the beginning of class.

### **Accessibility Options**

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 519 661-2111 x 82147 for any specific question regarding an accommodation. Information regarding accommodation of exams is available on the Registrar's website: [www.registrar.uwo.ca/academics/examinations/accommodated\\_exams.html](http://www.registrar.uwo.ca/academics/examinations/accommodated_exams.html)

### **Scholastic Offences**

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following web site: [www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf)

### **Mental Health**

Students who are in **emotional/mental distress** should refer to Mental Health@Western ([www.uwo.ca/health/mental\\_wellbeing/](http://www.uwo.ca/health/mental_wellbeing/)) for a complete list of options how to obtain help.